



CALIFORNIA HIGH SPEED RAIL AUTHORITY

Draft Program EIR/EIS

**Staff Recommendations on
Identifying Preferred Alignment and
Station Locations – Part 1**



STAFF RECOMMENDATIONS: Preferred HST Alignment and Station Locations (Part 1)

Introduction

In the Summary of the Draft Program EIR/EIS, the Authority and the Federal Railroad Administration (FRA) conclude that the High-Speed Train (HST) alternative is the preferred system alternative, but do not identify a preference among the HST alignment and station option presented. The Summary also states (Next Steps in the Environmental Process) that as part of the Final Program EIR/EIS, the Authority may identify one or more potential HST alignment options as preferred for the proposed high-speed train (HST) system and may also identify preferred station locations within an identified preferred corridor for the proposed HST system. In order to facilitate the selection of preferred alignment and station locations for the HST alternative in the Final Program EIR/EIS, the Authority staff is presenting recommendations to the Authority at the next two board meetings. Part 1 is being presented at the September 22, 2004 board meeting in Los Angeles, and Part 2 will be presented at the November 3, 2004 board meeting. These recommendations are being presented as "Action" items to the board. The Authority may act to approve some or all of these recommendations on September 22, 2004, or it may defer action to a later board meeting.

Part 1 covers the following segments: San Jose to Merced (Northern Mountain Crossing); Bakersfield to Sylmar (Southern Mountain Crossing); Sylmar to Los Angeles; and Los Angeles to Orange County. Part 2 will cover the remaining segments and include the following segments: Sacramento to Bakersfield; San Francisco to San Jose; Oakland to San Jose; and Los Angeles to San Diego via the Inland Empire. Aside from the introduction, this document pertains only to the Part 1 recommendations.

Staff recommendations are based upon the data presented in the Draft Program EIR/EIS and supporting technical reports, and the comments received on the Draft Program EIR/EIS (the comment period concluded on August 31, 2004). Chapter 6 of the Draft Program EIR/EIS summarizes and compares the physical and operational characteristics and potential environmental consequences associated with the HST alignment and station options where relative differences were identified including:

- Physical/operational characteristics
 - Alignment
 - Length
 - Capital Cost
 - Travel Time
 - Ridership
 - Constructability
 - Operational Issues
- Potential environmental impacts
 - Transportation related topics (air quality, noise and vibration, and energy)
 - Human environment (land use and community impacts, farmlands and agriculture, aesthetics and visual resources, socioeconomics, utilities and public services, hazardous materials and wastes)
 - Cultural resources (archaeological resources, historical properties) and paleontological resources
 - Natural environment (geology and seismic hazards, hydrology and water resources, and biological resources and wetlands).

- Section 4(f) and 6(f) resources (certain types of publicly owned parklands, recreation areas, wildlife/waterfowl refuges, and historical sites).

In making these recommendations the staff was guided by the objectives and criteria for selecting preferred alignments and station locations that were adopted by the Authority and were applied in the screening evaluation as documented in Section 2.6.9 of the Draft Program EIR/EIS (see Table 2.6.5 below).

**Table 2.6-5
High-Speed Rail Alignment and Station Evaluation Objectives and Criteria**

Objective	Criteria
Maximize ridership/revenue potential	Travel time Length Population/employment catchment area
Maximize connectivity and accessibility	Intermodal connections
Minimize operating and capital costs	Length Operational issues Construction issues Capital cost Right-of-way issues/cost
Maximize compatibility with existing and planned development	Land use compatibility and conflicts Visual quality impacts
Minimize impacts on natural resources	Water resources impacts Floodplain impacts Wetland impacts Threatened and endangered species impacts
Minimize impacts on social and economic resources	Environmental justice impacts (demographics) Farmland impacts
Minimize impacts on cultural and parks/wildlife refuge resources	Cultural resources impacts Parks and recreation impacts Wildlife refuge impacts
Maximize avoidance of areas with geologic and soils constraints	Soils/slope constraints Seismic constraints
Maximize avoidance of areas with potential hazardous materials	Hazardous materials/waste constraints

Several factors were considered in identifying potential station stops, including speed, cost, local access times, potential connections with other modes of transportation, ridership potential, and the distribution of population and major destinations along the route. There is a critical tradeoff between the accessibility of the system to potential passengers which is provided by multiple stations and stops, and the resulting HST travel times. Additional or more closely spaced stations (even with limited service) would lengthen travel times, reduce frequency of service, and the ability to operate both express and local services. The ultimate location and the configuration of stations cannot be determined at this time; this would occur during subsequent project-level environmental processes. Recommendations are made on station options to allow the Authority to pursue proposed station development at or near that location

in future project specific studies. It is possible and likely that some of the preferred stations included in the Final Program EIR/EIS will not be built.

The station sites recommended as preferred locations are all multi-modal transportation hubs that would provide links with local and regional transit, airports and highways. It is assumed that parking at the stations would be provided at market rates (no free parking). Each station site would have the potential to promote higher density, mixed-use, pedestrian oriented development around the station. As the project proceeds to more detailed study, local government would be expected to provide through planning and zoning for transit-oriented development around HST station locations, and to finance (e.g., through value capture or other financing techniques) and to maintain the public spaces needed to support the pedestrian traffic generated by hub stations if they are to have a HST station.

All the headings below indicate staff's recommendation of preferred alignments and station locations for the Authority's consideration. References to existing rail right of way as preferred alignments mean the proposed HST system would be located generally within or adjacent to the existing rail right-of-way, unless otherwise specified (e.g., shared use). "Constructability" issues refer to substantial engineering and construction complexity as well as excessive initial and/or recurring costs that present logistical constraints. "Connectivity" relates to how well a station site links with other modes of transportation (transit systems, aviation, and/or highways) and "accessibility" relates to how well the station site is located for serving the surrounding population. "Compatibility" relates to how well a station site fits within current or planned local land uses as defined in local plans.

Bakersfield-Los Angeles

The region from Bakersfield to Los Angeles was divided into two segments: 1) Bakersfield to Sylmar; and 2) Sylmar to Los Angeles.

1) Bakersfield to Sylmar

Preferred Alignment:

- SR-58/Soledad Canyon Corridor (Antelope Valley)

Analysis:

The Authority staff recommends identifying the alignment through the SR-58/Soledad Canyon Corridor (Antelope Valley) with an HST station at Palmdale as the preferred option for crossing the Tehachapi Mountains between the Central Valley and Southern California. Although the longer Antelope Valley alignment would add about 10 minutes to express service travel times between northern and southern California and have less intercity ridership potential (trips between regions) than the I-5 alignment option, it would have fewer potential environmental impacts, it would be less subject to seismic activity and have considerably less tunneling and thereby have fewer constructability issues, and would increase connectivity and accessibility.

The Antelope Valley alignment is estimated to have more potential to impact cultural resources than the I-5 alignment options, and slightly more potential impact on biological resources. The Antelope Valley alignment would have a lower overall potential for water-related impacts because the potential impacts are related to the relatively small seasonal streams in Soledad Canyon and it would not encroach on any lakes. The Antelope Valley option would also have less potential impacts to wetlands and non-wetland waters than the I-5 options¹. In addition, the Antelope Valley option was forecast to have less growth inducing impacts on urbanized land and farmland conversion than the I-5 options – because the I-5 options would result in more growth in the Central Valley. However, the most significant difference in regards to potential environmental impacts between the Antelope Valley option and I-5 alignments is in regards to major parklands (see Figure 6.4-1). The Antelope Valley alignment would not go through major parks. In contrast, the I-5 options would potentially impact Fort Tejon Historic Park, Angeles and Los Padres National Forests, Hungry Valley State Vehicular Recreation Area, Pyramid Lake and other local parks.

The Antelope Valley alignment traverses less challenging terrain than the I-5 options, which would result in considerably less tunneling overall (13 miles [21 km] of tunneling for the Antelope Valley option versus 23 [37 km] miles for I-5 options), and considerably shorter tunnels (maximum length of 3.4 miles [5.5 km] for the Antelope Valley option versus two tunnels greater than 5 miles [8 km] for the I-5 options) which would result in fewer constructability issues. Although the Antelope Valley option is about 35 miles longer than the I-5 alignment options, it is estimated to be slightly less expensive to construct as a result of less tunneling through the Tehachapi Mountains.

¹ An error was found on page 6-52 of the Draft Program EIR/EIS. For the Antelope Valley alignment under Biological Resources, waters should read 65,562 linear feet. The error was also made in Appendix 3, on page 3.15-D-8, Soledad Canyon Corridor, perennial non-wetland jurisdictional waters should read 146 linear feet as stated in the *Bakersfield to Los Angeles: Biological Resources Technical Evaluation Report (January 2004)*

Submittals by the City of Palmdale (oral testimony by U.C. Berkeley Professor Ashraf Mahtab at the April 13, 2004 public hearing and technical report by Geodata that is included as an attachment to the City of Palmdale's written comments) show additional seismic hazards relating to the I-5 alignment that further differentiate these options from the Antelope Valley alignment. These submittals suggest that since the I-5 alignment options follow the San Gabriel fault for over 20 miles (see Figure 3.13-2) and cross through the area where the San Andreas and Garlock faults meet, they would have greater seismic hazard and constructability issues than the Antelope Valley option. The Draft Program EIR/EIS rated both the I-5 options and the Antelope Valley alignment as having "High" potential for seismic hazards and active fault crossings, but did not differentiate between them. After reviewing the information submitted by the City of Palmdale, the Authority's staff and technical consultants believe that while the ratings for the alignments should not change, they concur that there are additional seismic hazards and risks for the I-5 alignment options from paralleling the San Gabriel fault, and also from traversing the "triangle" where the San Andreas and Garlock faults meet.

The Antelope Valley option would provide direct service to the Palmdale/Lancaster area, which increases the connectivity and accessibility of the HST network. The Antelope Valley is the fastest growing area in Los Angeles County and currently regional population forecasts estimate the Antelope Valley population could exceed 1 million by the year 2020. The HST system would also provide connectivity to Palmdale Airport and Metrolink commuter rail service.

Some public comments received on the Draft Program EIR/EIS supported the I-5 alignment options primarily because these would enable shorter travel times between Northern California and Los Angeles, and/or due to concerns regarding potential growth inducing impacts from an HST station at Palmdale. However, a larger number of the comments received indicated support for the Antelope Valley alignment. Public and agency support for the Antelope Valley option is strong in Los Angeles County because of the increased connectivity and accessibility it would provide for the Antelope Valley. Agencies which have indicated support for the Antelope Valley alignment include: the City of Los Angeles, the County of Los Angeles, Los Angeles County Metropolitan Transportation Authority (LAMTA), Los Angeles Department of Transportation, Southern California Association of Governments (SCAG), the City of Palmdale, City of Lancaster, County of Kern, Kern Council of Governments, and the City of Bakersfield.

The comments from the US Environmental Protection Agency (USEPA) on the Draft Program EIR/EIS (dated 8/31/04) stated concern regarding potential impacts to the Santa Clara River through the Soledad Canyon portion of the Antelope Valley alignment and noted that potential impacts could be avoided by more closely aligning the HST route with existing transportation networks. The Draft Program EIR/EIS defines Soledad Canyon as "a relatively wide corridor area that includes both the SR-14 and UPRR alignments between the Antelope Valley and Santa Clarita" (page 2-73). Future study of the Antelope Valley alignment should include an option that closely follows the SR-14 through Soledad Canyon as an avoidance option for potential impacts to the Santa Clara River. The Authority and the FRA will continue to work cooperatively with the USEPA to seek a resolution to their concerns regarding potential impacts to Soledad Canyon.

Preferred Station Locations:

- Palmdale/Antelope Valley: Palmdale Transportation Center

Analysis:

The Authority staff recommends identification of the Palmdale Transportation Center as the preferred HST station option to serve the Antelope Valley population. The Palmdale Transportation Center would maximize opportunities for intermodal connectivity. It would be at or near (with the opportunity for convenient shuttle or people-mover service) the Palmdale Airport, directly link with Metrolink service, and be a hub for local bus services.

- Sylmar: Sylmar Metrolink

Analysis:

The Authority staff recommends identification of the Sylmar Metrolink option as the preferred HST station option to serve the San Fernando Valley, Simi Valley and Newhall/Santa Clarita areas. The Sylmar Metrolink option would provide a direct connection to the Metrolink regional commuter rail service and convenient access to the Los Angeles freeway network.

2) Sylmar to Los Angeles

Preferred Alignment:

- Metrolink/UPRR

Analysis:

The Authority staff recommends identification of the Metrolink/UPRR alignment as the preferred option for HST service between Sylmar and Los Angeles (See Figure 6.4-2). It is recommended because it would have less potential for environmental impact, and would have less constructability issues than the Combined I-5/UPRR alignment option.

The Metrolink/UPRR option would have fewer potential impacts to local and regional parks than the Combined I-5/UPRR option. The Combined I-5/UPRR alignment option has the potential to impact Griffith Park, Elysian Park and the Cornfield property (See Figure 6.4-2A). The Combined I-5/UPRR route would also potentially impact slightly more biological resources than the Metrolink/UPRR route.

A considerable number of comments have been received regarding potential impacts to the Taylor Yard and Cornfield properties owned by California State Parks. The Metrolink/UPRR alignment would potentially impact the periphery of Taylor Yard property, whereas the I-5/UPRR alignment would bisect the Cornfield property. Taylor Yard and the Cornfield site were not identified in the Section 4(f) analysis (public parks and recreation) of the Draft Program EIR/EIS because at the time of the analysis in 2002, neither site was identified as an existing or future park in the sources reviewed for the analysis. However, since that time, the California Department of Parks and Recreation has initiated general plans for these two facilities.

The Metrolink/UPRR corridor is an existing rail corridor used by Metrolink commuter services and Amtrak intercity services. Use of the Metrolink/UPRR corridor offers opportunities to mitigate potential HST impacts (e.g. by putting the alignment underground, on aerial structure, or by aligning it away from sensitive resources). The HST current design for the Draft Program EIR/EIS assumes that the HST alignment would be along San Fernando Road adjacent to Taylor Yards (primarily to avoid curves). Keeping the Metrolink/UPRR design option along the existing Metrolink right-of-way around the Taylor Yards area should also be considered in future studies. In contrast the I-5/UPRR alignment option would bisect the Cornfield property with a new, at-grade alignment. Constructing the I-5/UPRR alignment underground through the Cornfield property would not be practical because of the need to transition to an aerial structure to serve the LAUS HST station site.

The Metrolink/UPRR and Combined I-5/UPRR options are expected to have similar construction costs. However, the Combined I-5/UPRR could require approximately 2 miles (3.2 km) of tunneling (including segments under Silver Lake and Elysian Park), and therefore is considered to have more constructability issues than the Metrolink/UPRR option. The combined I-5/UPRR alignment is opposed by the City of

Burbank because they believe it would have high impacts to established residential neighborhoods from the use of high-elevated structures over existing freeway overpasses through Burbank.

Preferred Station Locations:

- Burbank: Burbank Metrolink Media City

Analysis:

The Authority staff recommends identifying the Burbank Metrolink Media City (Downtown) station as the preferred HST station option to serve the Burbank/Glendale area and the San Fernando Valley. It would be an aerial structure and would be less costly and easier to construct than the Burbank Airport site (which would have to be constructed in a trench). The Burbank Metrolink Media City station site would offer higher connectivity to the Burbank area. This station site is in downtown Burbank, and would provide a direct connection to the Metrolink regional commuter rail service, a hub for bus transit in the Burbank area, and good access to Burbank Airport. The Burbank Metrolink Media City station would be about 2.4 miles (3.9 km) from the Burbank Airport terminal, as compared to the airport access provided by the Burbank Airport site, which is about 1.6 miles (2.6 km) from the airport terminal.

- Los Angeles: Los Angeles Union Station

Analysis:

The Authority staff recommends identifying the existing Los Angeles Union Station (LAUS) as the preferred HST station option to serve Los Angeles. The LAUS HST station would be an elevated structure constructed over the current Metrolink and Amtrak tracks. LAUS is the transit/rail transportation hub of southern California and would have the highest connectivity and accessibility for serving the Los Angeles metropolitan area. LAUS is the primary destination for the Metrolink Commuter rail services, the Los Angeles Metro Red Line, the Pasadena Gold Line, the Amtrak Surfliner service, and the regional bus transit services. The existing LAUS option would have limited potential impacts on the environment. This option is the preferred by the City of Los Angeles Department of Transportation and LOSSAN Rail Corridor Agency.

Los Angeles-Orange County-San Diego

This region is different than the other four since the proposed HST system would extend no further south than Irvine (as a result of environmental constraints along the coast and in coastal communities between South Orange County and San Diego). For this region, non-electric "conventional" rail improvements to the existing state-supported "Surfliner" (Amtrak) service are the only design options being considered between Irvine and San Diego in the Draft Program EIR/EIS.

The Authority has been working in a partnership with California Department of Transportation (Caltrans) Division of Rail concerning the potential "non electric" improvements for the existing rail corridor connecting Los Angeles, Orange County, and San Diego (LOSSAN). Caltrans has relied upon the Authority's technical studies to issue the LOSSAN Rail Improvements Draft Program EIR/EIS [State clearinghouse #2002031067]. The Authority staff recommends that implementation of "non-electric" improvements in the Irvine to San Diego portion of the LOSSAN corridor for intercity service be identified as the responsibility of Caltrans Division of Rail and that the Authority take no further action in this Program EIR/EIS regarding conventional improvements in this area.

The Authority staff has, however, provided separate recommendations for identifying preferred alternatives for the proposed LOSSAN conventional improvements, which will be considered by the Board, and then submitted as comments to Caltrans and the FRA.

Los Angeles to Anaheim/Irvine

Preferred Alignment:

- LOSSAN Corridor – HST (Los Angeles to Irvine)

The Authority staff recommends that the HST system should include direct service to Irvine in Orange County and further recommends the identification of the LOSSAN corridor as the preferred option for HST service between Los Angeles and Orange County (see Figure 6.6-2). This option assumes shared operations with other passenger services and separation from freight with 4 total tracks (2 for passenger rail services and 2 for freight) between Los Angeles and Fullerton. South of Fullerton the alignment would be two tracks with additional passing tracks at intermediate stations. The electrified HST would need to share tracks (at reduced speeds) with non-electric Metrolink commuter rail, Surfliner intercity service and occasional freight trains (there are fewer freight operations south of Fullerton).

Shared use improvements to the LOSSAN corridor would be considerably less costly (about \$2.25 billion less) and would have considerably fewer environmental impacts than a new dedicated alignment along the UPRR Santa Ana line, but the travel times would be longer (27 minutes LA-Anaheim vs. 16 minutes LA-Anaheim for UPRR Santa Ana) and HST operations could be constrained (capacity constraints, scheduling constraints, which are estimated to limit operations to between 18-45 trains a day in each direction by sharing tracks on the LOSSAN alignment).

This alignment would increase connectivity and accessibility to Orange County, California's second most populated county, and the transportation hubs of Anaheim and Irvine. Improvements to the LOSSAN corridor would provide a safer, more reliable, energy efficient intercity mode to serve Orange County and Southern Los Angeles County while improving the safety, reliability, and performance of the regional commuter, and "Surfliner" intercity service because of the fully grade separated tracks, separation from freight, and a state-of-the-art signaling and communications system. The HST service would greatly increase the capacity for intercity and commuter travel and reduce automobile traffic. Moreover, environmental impacts would be minimized since this alignment utilizes the existing LOSSAN right-of-way. Noise impacts from existing operations could be reduced due to the elimination of horn noise and gate noise from existing rail services as a result of adding grade separations at existing grade crossings.

Considerable support for direct HST service to Orange County utilizing the LOSSAN rail alignment has been expressed by the public and agencies in Orange County including: the Orange County Transportation Authority (OCTA), the City of Anaheim, the City of Irvine, the City of Fullerton, the LOSSAN Rail Corridor Agency, and Amtrak. Moreover, OCTA is opposed to the use of the UP Santa Ana Line for HST service. However, some concerns and opposition have been expressed to use of the LOSSAN alignment. The Burlington Northern Santa Fe (BNSF) made a general comment that the ability for BNSF to grow and expand with demand must be preserved. While Metrolink supports a fully grade separated LOSSAN corridor to Irvine, they have raised concerns that using LOSSAN as the HST alignment would hinder their ability to expand services. In addition, Metrolink commented that LOSSAN should be avoided as a route for "new modes" unless additional right-of-way width is purchased for any new HST tracks. The Gateway Cities Council of Governments comments raised concerns about potential impacts on land use, communities, neighborhoods, property and environmental justice for both the LOSSAN alignment and the UPRR Santa Ana Line, and stated their belief that significant property acquisition would be needed for the LOSSAN alignment through residential neighborhoods in Pico Rivera, and unincorporated portions of Los Angeles County. The Gateway Cities Council of Governments comments

state, "the amount of data available in the EIR/EIS is not yet sufficient to make a decision regarding which corridor should be selected through our area and such a selection must be deferred to the future when such data have been compiled." The City of Tustin submitted comments opposing HST service through Tustin (between Anaheim and Irvine).

Further analysis at the project level could indicate somewhat greater infrastructure requirements with potentially increased costs and environmental impacts. However, the cost and potential for environmental impact associated with the LOSSAN corridor option are expected to still be considerably less than those associated with the UPRR Santa Ana option. The Authority staff recommendation for the LOSSAN rail alignment is based on the assumption that the capacity and compatibility issues associated with the shared operations with existing non-electric service (Surfliners, Metrolink, and freight) can be resolved.

Potential Station Locations:

- Southeast Los Angeles County (Gateway Cities): Norwalk (LOSSAN)

The Authority staff recommends the Norwalk (LOSSAN) station as the preferred station to serve the Gateway Cities of south Los Angeles County, which include the cities of Vernon, Commerce, Montebello, Pico Rivera, Santa Fe Springs, Norwalk, and La Mirada. The Norwalk site would be at the Norwalk Metrolink Station with direct connectivity to the regional commuter rail service and is the bus transit hub for the area. The Norwalk (LOSSAN) site is the identified Gateway Cities' station option that is on the LOSSAN alignment, which is recommended as the preferred alignment between Los Angeles and Orange County.

- Central Orange County: Anaheim Transportation Center

The Authority staff recommends identifying the Anaheim Edison Field Amtrak/Metrolink station option as the preferred station option to serve Anaheim. The Anaheim Transportation Center is the existing transit hub for Central Orange County with high connectivity for Central Orange County. This station serves Amtrak (Surfliner) intercity and Metrolink commuter rail services, is a bus transit hub, and has low potential for environmental impacts. The City of Anaheim and OCTA support having a HST station stop at Anaheim, and the Anaheim Transportation Center is their preferred station location. The City of Fullerton has requested that there be an additional Central Orange County HST station at Fullerton.

- Southern Orange County: Irvine Transportation Center

The Authority staff recommends identifying the Irvine Transportation Center station option as the preferred station option to serve Irvine and South Orange County. The Irvine Transportation Center HST station option located at the existing Amtrak/Metrolink Station on the LOSSAN corridor would be a multi-modal transit hub that would serve Southern Orange County. This station serves Amtrak (Surfliner) intercity and Metrolink commuter rail services, is a bus transit hub, and has low potential for environmental impacts. The City of Irvine and OCTA support having a HST station stop at Irvine and the Irvine Transportation Center is their preferred station location.

Los Angeles to LAX

Alignment: No direct HST service

The Authority staff recommends that a direct HST service to LAX not be part of the initial statewide HST network. The HST system would be connected to LAX and Western Los Angeles County by local transportation (shuttle, regional transit, or the automobile). A direct HST link to LAX requires a costly

spur line with very limited maximum speeds that would have lower ridership potential than HST links to the San Diego (via the Inland Empire) and to Orange County.

The proposed HST network would serve the Inland Empire and San Diego using the I-215/I-15 corridor, and it is also recommended that the initial HST network serve Orange County via the LOSSAN alignment. Direct HST service to LAX would require an additional spur line south of Los Angeles Union Station (LAUS). Having the HST system to split in three different directions south of LAUS would considerably reduce the potential frequency of service for each of these corridors. Moreover, since a majority of the HST trains would be continuing from LAUS to either San Diego or Orange County, it is likely that many HST passengers wanting to reach LAX would still require a transfer at Union Station.

The MTA Harbor Subdivision rail right-of-way alignment is a little over 15 miles long and would cost about \$1.9 billion to construct, with an additional \$340 million needed for a sub-terrain station at LAX. Curves along the alignment would severely restrict speed throughout the alignment (average speed would be about 70 mph) resulting in a 13-minute travel time LA Union to LAX. This low-speed urban alignment could function very appropriately as a commuter rail line, which would be a feeder service to the HST system, or it could be considered for a future extension of the HST system once the initial network was operational.

San Diego County Association of Governments (SANDAG) supports a direct link to LAX via the I-15 Corridor, and NCTD supports a direct link to LAX via Orange County. However, in Los Angeles County and the SCAG region, airport planning has been focused on trying to shift future growth away from the severely capacity constrained LAX to satellite airports such as Ontario, Burbank and Palmdale. Comments were received from Friends of the Green Line advocating that the MTA Harbor Subdivision right-of-way should be used for a future northern extension of the Green Line to serve local/regional transit. In addition, the Los Angeles Department of Transportation suggests moving the existing Green Line to the Harbor Subdivision and using the I-105 right-of-way (existing Green Line) for HST. The Southern California Association of Governments (SCAG) commented that they are planning a regional Maglev system. The SCAG Maglev system as currently envisioned would link LAUS and LAX as part of the regional Maglev network.

San Jose to Merced: Northern Mountain Crossing

Preferred Alignment: *Further investigation is recommended to select a preferred alignment from within a broad corridor, which excludes alignment options through Henry Coe State Park.*

The Authority staff, in consultation with the FRA, has determined that the available information supports identification of a broad corridor for further study; however the existing information does not permit recommendation of preferred alignment options between the Central Valley and the Bay Area. The San Jose to Merced segment involves the crossing of the Diablo Range Mountains that separate the Central Valley from the San Francisco Bay Area. This is one of the most difficult geographic features encountered by the proposed HST system and is an area of controversy. The Authority staff recommends that a next-tier Program EIR/EIS process be initiated to focus on the selection of a preferred alignment between the Central Valley and the San Francisco Bay Area.

Many comments have been received urging further evaluation of the Altamont Pass as a potential alignment option. Federal agency comments and others have noted the limitations of available resources information regarding the Diablo Range mountain crossing. In addition, comments have been received indicating that other undeveloped areas in the northern mountain crossing outside the current boundaries of Henry Coe State Park contain sensitive resources. A next-tier Bay Area to Merced Program EIR/EIS should consider alignment options between (and including) the Pacheco Pass Corridor (SR-152) to the south, and the Altamont Pass Corridor (I-580) to the north.

Many comments have also been received opposing potential HST alignments through (or under) Henry Coe State Park (which includes the Orestimba State Wilderness Preserve). The Authority staff recommends that alignment options through Henry Coe State Park should not be included in any subsequent environmental analysis.

HST alignments through Henry Coe State Park would have greater potential environmental impacts than alignment options through the Diablo Range that would avoid the park to the north. Alignments through Henry Coe State Park would have the highest impacts to Section 4(f) and 6(f) Resources (both long-term and construction impacts). In addition, the considerable amount of public and agency input in regards to these alignment options has been overwhelmingly opposed to any construction through Henry Coe State Park.

The Authority staff also recommends that the Pacheco Pass alignment HST station at Los Banos (Western Merced County) should not be included in subsequent environmental reviews because of low intercity ridership projections for this site, limited connectivity and accessibility, and potential impacts to water resources and threatened and endangered species. Although the City of Los Banos supports the Pacheco Pass alignment with a potential station at Los Banos, considerable public and agency opposition has been expressed about a potential Los Banos HST station because of its perceived potential to result in growth related impacts. This station option (as well as the Visalia/Hanford option) has low ridership potential compared to other potential station locations investigated by the Authority. In 2020, this station is forecast to serve a population of only about 88,000 (forecast to only have between 155,000 and 190,000 annual total intercity boardings and alightings by 2020). This is expected to slightly reduce the capital costs of the HST system and reduce potential environmental impacts at Los Banos.